August-28-13 1:14:27 PM

106143

Page 1

Item ID: D2012-115-3 Accept *N900040100* Setup Start **Revision ID:** Stop Item Name: Joggled Bracket *16* **Start Oty: 16.00** Start Date: 8/28/13 **Cust Item ID:** Required Date: 8/28/13 Req'd Oty: 16.00 *16* **Customer:** Reference: Run Start Process Plan: __MUJ Date: 13-08-30 Tooling: Approvals: Date: Stop Date: SPC(Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Reject Accept Insp. Work Center ID Description Qty **Run Hours** Code Qty Number Stamp Draw Nbr **Revision Nbr** D2012-115 В 100 0.00 FLOW WATER JET Jm3-11-15 *100* 16 0____ Waterjet 0.00 Memo FLOW CNC Waterjet 1-Cut as per Dwg Dwg Rev: Prog Rev: 2-Deburr if necessary 110 QC2- Inspect parts off machine FAI/FAIB 0.00 *1110* JN13-11-15 QC -0.00 Memo Quality Control DAS 27 QC8- Inspect parts - second check 0.00 9-89 *120* 0.00 13 11 15 Memo **Quality Control**

| | | | DQA: | Date: |
|------|----------|-------------------------------------|------------|-------|
| NCR: | Yes / No | WORK ORDER NON-CONFORMANCE / UPDATE | | |
| | | | QA Closed: | Date: |

| | | | | | | | | | | QA Closed. | Date | • |
|---------------------------|--------------------|----------|------------|----------|--|---------------|---------|--|---|---------------|---|---------------------------|
| Work Orde | r: | | | | DISPOSITION | | | | AGAINST DE | PARTMENT | PROCESS | |
| Part N NCR N | lo | | | | Rework Scrap Use-as-is Work Order Update | | Therm | Skid-tube Machining noforming Large Fab | Crosstube Small Fab Finishing Composite | | Water Jet d. Eng. Coor. re/Packaging Supplier | Engineering Quality Other |
| Root | | | | Descri | ption of work order update | lr | itial | Act | tion | Sign & | : | |
| Cause | Date | Step | Qty | | or Non-conformance | Chi | ef Eng | Desci | ription | Date | Verification | QC Inspector |
| Doc/Data Equip/Tooling | | | | | | | - | | | | | |
| Operator | | | | | | | | | | | | |
| Material | | | | • | | | | | | | | |
| Setup | | | | | | | | | | | | |
| Other | | | | | | | | | | | | \$ |
| Process | | | | | | 1 | | | | | | |
| Supplier | | | | | | | | | | | | |
| Training | | | | | | | | | | | | |
| Unapproved | | | | | | | | | | | | |
| | | | | | F | AUL | CATE | GORY | | | | |
| Landi | ng Gear | | | | General | | | | _ | 1 | _ | _ |
| | Bending | | | | Bend | \vdash | Grain | | <u> </u> | Ovalized | _ | Pressure/Forced |
| | Centre N | ot Conce | ntric to (| o/s | BOM/Route | - | Hardwa | | <u> </u> | Over/Under | | Temperature/Cure |
| | Cracks | | | <u> </u> | Broken/Damaged | \rightarrow | - | ion Incomplete | <u> </u> | Part Incorred | <u> </u> | Weld |
| | Crushed/ | Crimped | | <u> </u> | Burrs | - | | tions Incomplete/ | Unclear | Part Lost/Mi | ssing | Wrong Stock Pulled |
| | Cuffs | | | - | Contamination | | | enance | ļ | Part Moved | | |
| | Heat Trea | | | _ | Countersink | - | Mislabe | | ļ | Positioned V | | ٦٠ |
| | Inspectio | • | Tube | _ | Cut Too Short | \vdash | Misrea | d | <u>L</u> | Power Loss/ | Surge | Other |
| | Ripples in | | | <u> </u> | Drill Holes | \vdash | Offset | o !!! .: | | | | · |
| | Torque V | | | n - | Drawing | \vdash | | Calibration | | | | |
| | Turning S | - | | - | Finish | \vdash | | Sequence | | | | |
| 1 | Wave/Twist in Tube | | Folio | 1 1 | Outside | e Dimensions | | | | | | |

| | | | | | | | | <u>.</u> | · . |
|--|--|------------------------------|-------------|---------------------|--------------|---------------|---------------|------------------|----------------------|
| e r ID 106143 14:27 PM | | *106 | 3143* | | | | | | Page 2 |
| D2012-115-3 Joggled Bracket 8/28/13 Start Qty: 16.00 | *16* | Accept | Cust Item I | • | 100 |) * | | 1.7 | S1* S2* |
| 8/28/13 Req a Qty: 10.00 | *16* | | Customer: | | | | | | |
| Process Plan:QC: | Date: | Tooling: SPC (Y/N): | | | | I | | | R1* R2* |
| Operation Description Form as per dwg NC BRAKE Memo | | Set Up/ Run Hours 0.00 | Tool ID | Tool # DAS 30 9-89 | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp 13/11/2 |
| QC5- Inspect part compl Memo | eteness to step on W/O | 0.00 DAS 27 9-89 |) <i>0</i> | | | 16 | | | |
| | D2012-115-3 Joggled Bracket 8/28/13 Start Qty: 16.00 8/28/13 Req'd Qty: 16.00 Process Plan: QC: Operation Description Form as per dwg NC BRAKE Memo QC5- Inspect part complete | D2012-115-3 | D2012-115-3 | D2012-115-3 | D2012-115-3 | D2012-115-3 | D2012-115-3 | D2012-115-3 | Accept |

150

150 Packaging

Packaging

Memo

Identify as per dwg & Stock Location: 0.00

0.00

13-11-21

| NCR: Yes | / No | | | | WORK ORDER NON- | COI | VFORI | MANCE / UP | DATE | | _ | | |
|---------------|-------------|-------------|----------|---------------------------------------|---------------------------------------|-----|--------------|----------------------------|--------------|------------|---------------|--------------|--|
| | | | | | | | | · | | QA Closed: | Date: | | |
| Work Order: | | | | | DISPOSITION | | | AGAINST DEPARTMENT/PROCESS | | | | | |
| Work Order. | | | | | Rework | | Skid-tube | Crosstube | 1 | Water Jet | Engineering | | |
| Part No. | | | | | Scrap | 1 | | Machining | Small Fab | Pro | d. Eng. Coor. | Quality | |
| 1 | | · · · · · · | | · · · · · · · · · · · · · · · · · · · | Use-as-is | 1 | i | noforming | Finishing | - | re/Packaging | Other | |
| NCR No. | | | | | Work Order Update Large Fab Composite | | | | | Supplier | | | |
| | | | | | , _ | ر ر | | - <u> </u> | | | | | |
| Root | | | | Descri | ption of work order update | T | nitial | Ac | tion | Sign & | | | |
| Cause | Date | Step | Qty | • | or Non-conformance | Ch | ief Eng | Desc | ription | Date | Verification | QC Inspector | |
| Doc/Data | | | | | | | | | | | | | |
| Equip/Tooling | | | | | | | | | | | | | |
| Operator | | | | | | | | | | | | | |
| Material | | | | | | | | • | | İ | | • | |
| Setup | | | | | | | | | | | | , | |
| Other | | | | | · · | | | | | | | | |
| Process | 1 | ļ | | | * *** | | | | | | | | |
| Supplier | | İ | | | | | | | | | | | |
| Training | | | | | | | | | | | | | |
| Unapproved | | <u> </u> | <u> </u> | <u> </u> | | | | | | l | <u> </u> | | |
| | | | | | | AUI | T CATE | GORY | | | | | |

| | | | FAU | LICATEGORI | | |
|---------|------------------------------|----------------|-----|---------------------------------|----------------------|--------------------|
| Landing | Gear | General | | _ | _ | _ |
| | Bending | Bend | | Grain | Ovalized | Pressure/Forced |
| | Centre Not Concentric to O/S | BOM/Route | | Hardware | Over/Under tolerance | Temperature/Cure |
| | Cracks | Broken/Damaged | | Inspection Incomplete | Part incorrect | Weld |
| | Crushed/Crimped | Burrs | | Instructions Incomplete/Unclear | Part Lost/Missing | Wrong Stock Pulled |
| | Cuffs | Contamination | | Maintenance | Part Moved | |
| | Heat Treat | Countersink | | Mislabeled | Positioned Wrong | _ |
| | Inspection Strip in Tube | Cut Too Short | | Misread | Power Loss/Surge | Other |
| | Ripples in Bend | Drill Holes | | Offset | | |
| | Torque Waves in Extrusion | Drawing | | Out of Calibration | | |
| | Turning Sequence | Finish | | Out of Sequence | | |
| | Wave/Twist in Tube | Folio | | Outside Dimensions | | |

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

| Work | Order | ID | 106143 |
|------|-------|----|--------|
| | | | |

Quality Control

106143

Page 3

August-28-13 1:14:27 PM D2012-115-3 Accept Item ID: *N900040100* Setup Start Revision ID: Joggled Bracket Item Name: **Start Date:** 8/28/13 **Start Qty:** 16.00 *16* **Cust Item ID:** Required Date: 8/28/13 Req'd Qty: 16.00 *16* **Customer:** Reference: Run Start Process Plan: **Tooling:** Approvals: Date: Date: Stop QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool # Plan Reject Tool ID Accept Reject Insp. Work Center ID Description Qty **Run Hours** Code Qty Number Stamp 160 QC21- Final Inspection - Work Order Release 0.00 *160* 0.00 Memo

NB-11-21

| | | | | | | | | | | DQA: | Date: | | |
|---------------|------|------|-----|--------|----------------------------|-----|----------|------------|-----------|-------------------|---------------|--------------|--|
| NCR: Yes | / No | | | | WORK ORDER NON-C | 10: | VFOR | MANCE / UP | DATE | | | | |
| | | | | | | | | | | QA Closed: | Date: | | |
| Work Order: | | | | | DISPOSITION AGAINST DE | | | | | EPARTMENT/PROCESS | | | |
| | | | | | Rework | | | Skid-tube | Crosstube |] | Water Jet | Engineering | |
| Part No. | | | | | Scrap | | ! | Machining | Small Fab | Pro | d. Eng. Coor. | Quality | |
| | | | | | Use-as-is | | Thern | noforming | Finishing | Rec/Sto | re/Packaging | Other | |
| NCR No. | | | | | Work Order Update | | | Large Fab | Composite | | Supplier | | |
| Root | | | | Descri | ption of work order update | | Initial | Ac | tion | Sign & | | , | |
| Cause | Date | Step | Qty | · | or Non-conformance | Cr | nief Eng | Desc | ription | Date | Verification | QC Inspector | |
| Doc/Data | l l | | | | | | | | | | | | |
| Equip/Tooling | | | | | | | | | | | | | |
| Operator |] | | | | | | | | | | | | |
| Material |] | | ' | | | | | | | | | | |
| Setup | | | | | | | | | | | | | |
| Other | | |] | | | | | | | | | | |
| Process |] | 1 | 1 | | | ĺ | | | | | | | |

Cuffs Contamination Maintenance Part Moved Heat Treat Positioned Wrong Countersink Mislabeled Power Loss/Surge Other Inspection Strip in Tube Cut Too Short Misread Drill Holes Ripples in Bend Offset Out of Calibration Torque Waves in Extrusion Drawing Turning Sequence Finish Out of Sequence Folio Outside Dimensions Wave/Twist in Tube

FAULT CATEGORY

Grain

Hardware

Inspection Incomplete

Instructions Incomplete/Unclear

Pressure/Forced

Weld

Temperature/Cure

Wrong Stock Pulled

Ovalized

Part Incorrect

Part Lost/Missing

Over/Under tolerance

General

Bend

Burrs

BOM/Route

Broken/Damaged

Supplier Training Unapproved

Landing Gear

Bending

Cracks

Crushed/Crimped

Centre Not Concentric to O/S

Picklist Print

August-28-13 1:14:31 PM

Work Order ID: 106143

106143

D2012-115-3

D2012-115-3

Parent Item Name: Joggled Bracket

Start Date: 8/28/13

Required Date: 8/28/13

Page 1

Start Qty: 16.00

Required Qty: 16.00

Comments:

Parent Item:

IPP REV:A 12.05.29 MADE IN HOUSE DD VERF:EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|-----------------------|---------------|----------------|---------|
| M304S16GA | | Purchased | No | | | 100 | sf | 246.8822 | 0.016 | -0:26947 4 | | | |
| *M304S16 | GA* | | | | | | | | ** | 0.5 | | | JM3-11- |

304/316 Sheet .063

| Location | Loc Qty | Loc Code | |
|-----------------|-------------|----------|-------------|
| MAT020 | 246.8821686 | | |
| 122245 | 0.1713688 | | |
| 123136 | 140.8 | | |
| 124428 | 23.61 | | |
| 125599 | 5.410631 | | |
| M126159 | 76.8901688 | | |

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| | | DQA: | Date: | |
|---------------|-------------------------------------|------|-------|--|
| ICR· Yes / No | WORK ORDER NON-CONFORMANCE / UPDATE | | | |

| | | | | | | | | | | | QA Closed: | Date | e: |
|---------------|---------------|------------|--|----------|----------|--|-------------|---------|--|---|----------------|---------------------------|--|
| Work Orde | er: | | | | | DISPOSITION | | | | AGAINST DE | PARTMENT | /PROCESS | |
| Part N | - . No. | 14.36.1 | | | | Rework Scrap Use-as-is Work Order Update | | l | Skid-tube Machining noforming Large Fab | Crosstube Small Fab Finishing Composite | Pro Rec/Sto | Engineering Quality Other | |
| Root | | | <u> </u> | | Descri | ption of work order update | Init | tial | Ac | tion | Sign & | | |
| Cause | - | Date | Step | Qty | | or Non-conformance | Chief | f Eng | Desc | cription | Date | Verification | QC Inspector |
| Doc/Data | | | | | | | | | | | | | |
| Equip/Tooling | | | | , | | | 1 | | | | | | |
| Operator | | | | | | | | | | | | | |
| Material | | | | | | | 1 | | | | ł | | |
| Setup | | | | | | | | | | | | | |
| Other | | | | 1 | | | | | | | | } | |
| Process | Ш | | | | | | | | | | | | |
| Supplier | | | | | | | | | | | | | |
| Training | | | | | | | | | | | | | |
| Unapproved | | | <u> </u> | <u> </u> | | | <u> </u> | | | | <u> </u> | | |
| | | | | | | ······································ | AULT | CATE | GORY | | | | ······································ |
| Landi | | 1 | | | | General | | | | | 1 | г | _ |
| | Ш | Bending | | | | Bend | | rain | | | Ovalized | | Pressure/Forced |
| | Ш | Centre N | ot Conce | ntric to | o/s | BOM/Route | | ardwa | | | Over/Under | | Temperature/Cure |
| | \vdash | Cracks | | | _ | Broken/Damaged | | - | ion Incomplete | | Part Incorre | - | Weld |
| | $\overline{}$ | Crushed/ | Crimped | | - | Burrs | - | | ions incomplete | /Unclear | Part Lost/M | issing _ | Wrong Stock Pulled |
| | | Cuffs | | | <u> </u> | Contamination | \vdash | | enance | <u> </u> | Part Moved | | |
| | \vdash | Heat Trea | | | <u> </u> | Countersink | | lislabe | | | Positioned V | | |
| | _ | Inspectio | | Tube | | Cut Too Short | - | lisrea | 1 | L | Power Loss/ | Surge | Other |
| | \vdash | Ripples in | | | <u> </u> | Drill Holes | — | ffset | o let i de | | | | |
| | \vdash | Torque V | | | n | Drawing | \vdash | | Calibration | | | | |
| | | Turning S | - | | - | Finish | | | Sequence | | | | |
| 1 | 1 | Wave/Tv | vist in Tul | be | 1 | lFolio | 1 10 | utside | Dimensions | | | | |

| DART AEROSPACE LTD | Work Order: 106143 |
|--|---------------------------|
| and the second s | |
| Description: JOGGLE BRACKET | Part Number: 03013 -(15-3 |
| Inspection Dwg: 10010 115 Rev: B | Page 1 of 1 |

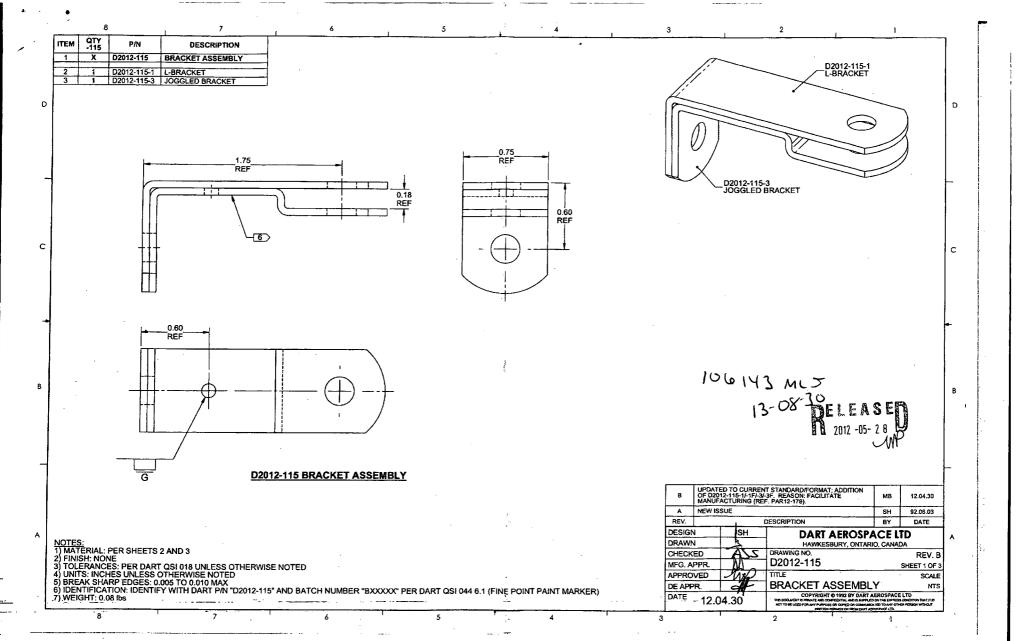
FIRST ARTICLE INSPECTION CHECKLIST

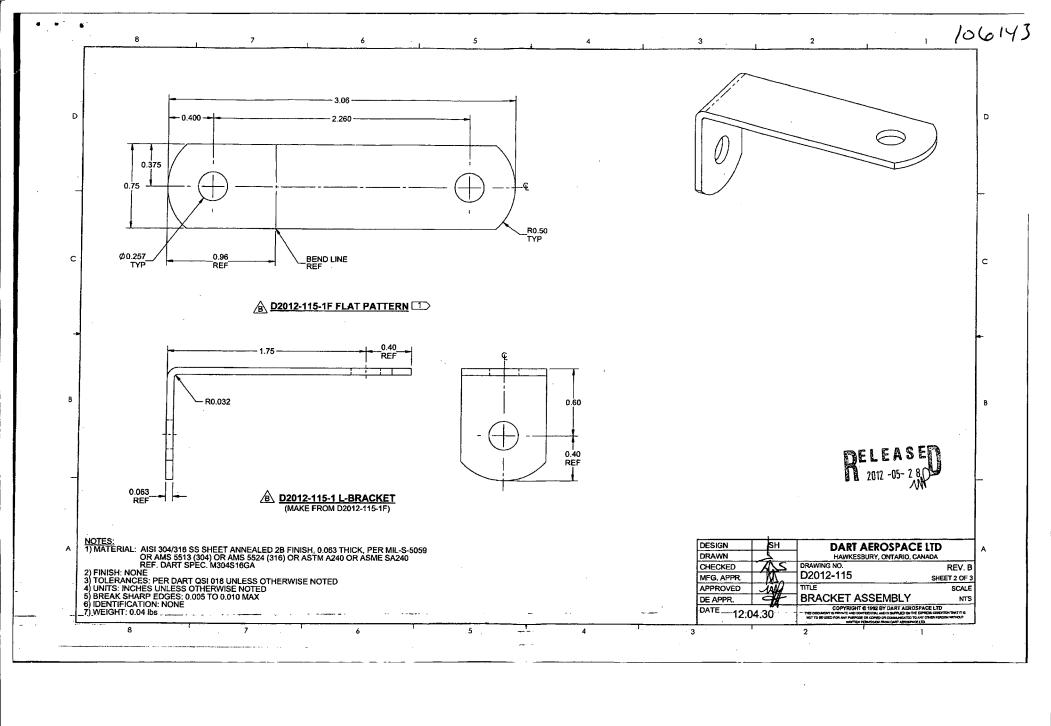
| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|----------------------|---------------|---------------------|--------|--------|-------------------------|----------|
| Ø 0.13" | 10.005 -0.001 | 0.,300 | | | V | Jkmoi |
| Ø0.257" | +0.00c -0.001 | 0.257" | - | | V | |
| 0.75 | 11-0030 | 0.7562 | | | V | |
| 0.375 | 11-0.010 | 0.3787 | | | V | |
| 306° | 11-0 030" | 3.064 | - | | V | |
| 2,261" | H0010" | 2 265" | _ | | U | |
| 0.985 | H-0 010" | 0.987" | | | V | |
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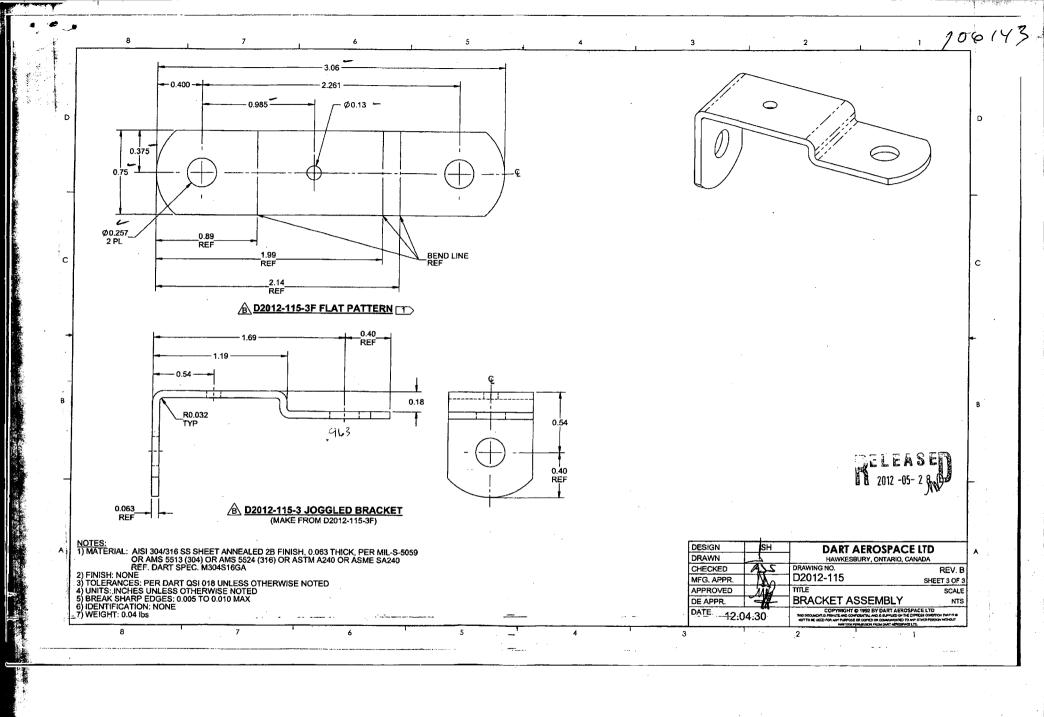
| | | DAS | | | |
|-----------------|-------------|---------|-----|-----------------------|--|
| Measured by: Jm | Audited by: | 27 |) | Preliminary Approval: | |
| Date: 13-11-15. | Date: | 17 /11 | 115 | Date: | |
| | | -X-1-11 | | | |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|----------------------------|------------|----------|
| E | 10.04.14 | Added preliminary approval | KJ | |

A 10.04.15







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